

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

In the claims

1. - 122. (Cancelled).

123. (Currently Amended): A device for managing respiration of a patient comprising:

at least one electrode configured to ~~be coupled to~~ target a diaphragm or phrenic nerve tissue of a patient's body wherein the at least one electrode is configured to deliver electrical stimulation to the diaphragm or phrenic nerve tissue to thereby elicit a diaphragm response; and

a stimulator configured to deliver a stimulation signal to the diaphragm or phrenic nerve tissue through the at least one electrode in response to sensed respiration due to phrenic nerve activity detected internally within the patient's body to elicit an inspiration duration different from an intrinsic inspiration duration of an intrinsic breath.

124. (Previously Presented): The device of claim 123 wherein the stimulator is configured to deliver a stimulation signal to the tissue through the at least one electrode to elicit an increased inspiration duration with respect to an intrinsic inspiration duration of an intrinsic breath.

125. (Previously Presented): The device of claim 123 wherein the stimulator is configured to deliver a stimulation signal to the tissue through the at least one electrode to elicit a decreased exhalation duration with respect to an intrinsic exhalation duration of an intrinsic breath.

126. (Currently Amended): A device for managing respiration of a patient comprising:

at least one electrode configured to ~~be coupled to~~ target a diaphragm or phrenic nerve tissue of a patient's body wherein the at least one electrode is configured to deliver electrical stimulation to the diaphragm or phrenic nerve tissue to thereby elicit a diaphragm response; and

a stimulator configured to deliver a stimulation signal to the diaphragm or phrenic nerve tissue through the at least one electrode in response to sensed respiration due to phrenic nerve activity detected internally within the patient's body to elicit an exhalation duration different from an intrinsic exhalation duration of an intrinsic breath.

127. (Currently Amended): The device of claim ~~[[128]]~~ 123 wherein the stimulator is configured to deliver a stimulation signal to the tissue through the at least one electrode to elicit a decreased exhalation duration with respect to an intrinsic exhalation duration of an intrinsic breath.

128. – 140. (Cancelled).

141. (Previously Presented): The device of claim 123 further configured to elicit an inspiration rate different from an intrinsic inspiration rate.

142. (Previously Presented): The device of claim 123 further configured to elicit an exhalation rate different from an intrinsic exhalation rate.

143. – 148. (Cancelled).

149. (Previously Presented): The device of claim 124 wherein the stimulator is configured to deliver a stimulation signal to the tissue through the at least one electrode to elicit a slow elongated inspiration.

150. (Previously Presented): The device of claim 123 wherein the stimulator is configured to deliver a stimulation signal to the tissue through the at least one electrode to elicit a fast, short inspiration.

151. (Previously Presented): The device of claim 123 wherein the stimulator is configured to deliver low level sequential stimulations.

152. (Previously Presented): The device of claim 125 wherein the stimulator is configured to deliver a stimulation signal that is directed to manipulating blood gases to thereby treat apnea.

153. (Currently Amended): A device for managing respiration of a patient comprising:

at least one electrode configured to ~~be coupled to~~ target a diaphragm or phrenic nerve tissue of a patient's body wherein the at least one electrode is configured to deliver electrical stimulation to the diaphragm or phrenic nerve tissue to thereby activate at least a portion of [[a]] the diaphragm; and

a stimulator configured to deliver a stimulation signal to the diaphragm or phrenic nerve tissue through the at least one electrode in response to sensed respiration due to phrenic nerve activity detected internally within the patient's body to elicit an inspiration duration different from an intrinsic inspiration duration of an intrinsic breath.

154. (Previously Presented): The device of claim 153 wherein the stimulator is configured to deliver a stimulation signal to the tissue through the at least one electrode to elicit an increased inspiration duration with respect to an intrinsic inspiration duration of an intrinsic breath.

155. (Previously Presented): The device of claim 153 wherein the stimulator is configured to deliver a stimulation signal to the tissue through the at least one electrode to elicit a decreased exhalation duration with respect to an intrinsic exhalation duration of an intrinsic breath.

156. (Previously Presented): The device of claim 153 wherein the stimulator is configured to deliver a stimulation signal to the tissue through the at least one electrode to

elicit a decreased exhalation duration with respect to an intrinsic exhalation duration of an intrinsic breath.

157. (Previously Presented): The device of claim 153 further configured to elicit an inspiration rate different from an intrinsic inspiration rate.

158. (Previously Presented): The device of claim 153 further configured to elicit an exhalation rate different from an intrinsic exhalation rate.